

CLAIMS

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1. A device for surgical or therapeutic use, particularly implants and surgical instruments as well as their accessories, comprising a body with a surface to be kept sterile for use, said surface being modified to have antibacterial effect.

2. The device as set forth in claim 1 wherein the device has an antibacterial layer.

3. The device according to claim 2, wherein the surface has a layer that releases ions with an antibacterial effect.

4. The device as set forth in claim 3 wherein the ions are silver ions.

5. The device according to claim 3, wherein the layer has a matrix, preferably made of plastic, that serves to continuously release ions with an antibacterial effect, particularly silver ions.

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6. The device according to claim 1, wherein the body and the surface consisting at least partially of a resorbable and non-resorbable plastic, particularly of polylactides (PLA), poly-L-lactides (PLLA), polyetheretherketone (PEEK), as well as ultra high molecular weight polyethylene (UHMWPE), including a substance that releases ions with an antibacterial effect.

7. The device according to claim 1, wherein the device consists at least partially of ceramic material, particularly of tricalcium phosphate (TCP), hydroxyapatite (HA), which includes a substance that releases ions with an antibacterial effect.

8. The device according to claim 7, wherein the device consists at least partially of ceramic material, particularly of tricalcium phosphate (TCP), hydroxyapatite (HA), which includes a substance that releases ions with an antibacterial effect.

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9. The device according to claim 1, wherein the surface is provided with a coating consisting of a member selected from the group consisting of titanium nitride oxide, titanium niobium ceramic, titanium zirconium ceramic, an anode oxidation Type II of titanium and combinations thereof.

10. The device according to claim 1, wherein the surface is provided with a coating that contains modified diamond-like carbon (DLC) and/or carbon embedded in steel.

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11. The device according to claim 1, wherein the surface is provided with a coating that contains hydroxyapatite.

12. The device according to claim 1, wherein the surface is provided with a coating that contains calcium phosphate.

13. The device according to claim 1, wherein the surface is provided with a coating that contains tantalum oxide.

14. The device according to claim 1, wherein the surface is provided with a coating that contains magnesium.

15. The device as set forth in claim 1 further comprising a coating consisting of a member selected from the group of hydroxyapatite, calcium phosphate, tantalum oxide, magnesium.

16. The device according to claim 15, wherein the surface is smooth, especially ground and/or polished.

17. The device according to claims 1, wherein the surface has an electrical voltage applied to it.

18. The device according to claim 17, wherein the surface briefly has an electrical voltage applied to it.

19. The device according to claim 17, wherein an adapter is provided to generate an electrical potential at the surface by means of a voltage source, particularly an alternating voltage source.

20. The device according to claim 17, wherein the surface is electrostatically charged.

21. A flowable implantable substance for medical technology use, comprising a substance that releases silver ions with having an antibacterial effect.

22. A method for producing an antibacterial effect on a device for medical use comprising:

incorporating into a surface of the device a member selected from the group consisting of diamond-like carbon, silver ions, copper ions, titanium nitride oxide, titanium niobium ceramic, titanium zirconium, ceramic anode oxidation Type II of titanium, hydroxyapatite, calcium phosphate, tantalum oxide, magnesium and combinations thereof.

23. The method as set forth in claim 22 further comprising applying an electric current to said device.